The Journal of

Steroid Biochemistry & Molecular Biology

Editor-in-Chief
J.R. PASQUALINI

VOLUME CONTENTS,
SUBJECT AND AUTHOR INDEX

Volume 78
2001

Pergamon

The Journal of
Steroid Biochemistry and Molecular Biology

EDITOR-IN-CHIEF

J. R. Pasqualini

Steroid Hormone Research Unit, Institut de Puériculture, 26 Boulevard Brune, 75014 Paris, France
Tel.: +33-1-45399109; Fax: +33-1-45426121; E-mail: jorge.pasqualini@wanadoo.fr

HONORARY EDITOR-IN-CHIEF

R. Scholler

CORRESPONDING EDITORS

M. Beato, Marburg/Lahn, Germany
A. S. Bhatnagar, Basel, Switzerland
R. Bouillon, Leuven, Belgium
A. Brodie, Baltimore, U.S.A.
K. J. Catt, Bethesda, U.S.A.
G. Chetrite, Paris, France
J. A. Cidlowski, Research Triangle Park, U.S.A.
P. D. Darbre, Reading, U.K.
G. Daxenbichler, Innsbruck, Austria
A. De Nicola, Buenos Aires, Argentina
E. R. DeSombre, Chicago, U.S.A.
B. N. Diaz-Chico, Las Palmas, Spain
R. B. Dickson, Washington, U.S.A.
M. Dowsett, London, U.K.
M. L. Dufau, Bethesda, U.S.A.
D. P. Edwards, Denver, U.S.A.
H. A. Eriksson, Stockholm, Sweden
J. W. Funder, Prahran, Australia
S. A. Fuqua, Houston, U.S.A.
G. Greene, Chicago, U.S.A.
B. Groner, Frankfurt am Main, Germany
J.-Å. Gustafsson, Huddinge, Sweden
K. B. Horwitz, Denver, U.S.A.
I. Huhtaniemi, Turku, Finland
V. C. Jordan, Chicago, U.S.A.
J. Kato, Tokyo, Japan
B. S. Katzenellenbogen, Urbana, U.S.A.
A. M. Kaye, Rehovot, Israel
J. Kitawaki, Kyoto, Japan
E. R. de Kloet, Leiden, The Netherlands
H. J. Kloosterboer, Oss, The Netherlands
F. Labrie, Quebec, Canada
S. Liao, Chicago, U.S.A.
V. B. Mahesh, Augusta, U.S.A.
L. Martini, Milan, Italy
B. S. McEwen, New York, U.S.A.
H. Michna, Cologne, Germany
E. Milgrom, Le Kremlin-Bicêtre, France
L. J. Murphy, Winnipeg, Canada
A. Naray-Fejes-Toth, Hanover, U.S.A.
M. I. New, New York, U.S.A.
A. W. Norman, Riverside, U.S.A.
T. Ojasoo, Montrouge, France
J. Paris, Monaco
M. G. Parker, London, U.K.
G. Pérez-Palacios, Mexico City, Mexico
J. P. Raynaud, Paris, France
R. Renkawitz, Giessen, Germany
H. Rochefort, Montpellier, France
E. R. Sanchez, Toledo, U.S.A.
B. Sato, Osaka, Japan
M. Serio, Florence, Italy
E. R. Simpson, Clayton, Australia
L. Stárka, Prague, Czech Republic
R. L. Sutherland, Darlinghurst, Australia
J. H. H. Thijssen, Utrecht, The Netherlands
D. O. Toft, Rochester, MN, U.S.A.
P. Tuohimaa, Tampere, Finland
G. Verhoeven, Leuven, Belgium
A. Vermeulen, Ghent, Belgium
P. Vihko, Oulu, Finland
G. Vollmer, Dresden, Germany
C. R. Wira, Hanover, U.S.A.

HONORARY ASSOCIATE EDITORS

H. Adlercreutz, Helsinki, Finland **E. V. Jensen, Hamburg, Germany** **R. J. B. King, Guildford, U.K.**

Publication Frequency: Published semi-monthly in 4 volumes.

Publication information: The Journal of Steroid Biochemistry and Molecular Biology (ISSN 0960–0760). For 2001, volumes 76–79 are scheduled for publication. Subscription prices are available upon request from the Publisher or from the Regional Sales Office nearest you or from this journal's website (http://www.elsevier.com/locate/jsbmb). Further information is available on this journal and other Elsevier Science products through Elsevier's website: (http://www.elsevier.com). Subscriptions are accepted on a prepaid basis only and are entered on a calendar year basis. Issues are sent by standard mail (surface within Europe, air delivery outside Europe). Priority rates are available upon request. Claims for missing issues should be made within six months of the date of dispatch.

Periodicals postage paid at Rahway, New Jersey. The Journal of Steroid Biochemistry and Molecular Biology (ISSN 0960–0760) is published semi-monthly in 4 volumes by Elsevier Science Ltd., The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, UK. The annual subscription in the USA is $3538.00.
The Journal of Steroid Biochemistry and Molecular Biology is circulated by Mercury International Limited, 365 Blair Road, Avenel, NJ 07001, USA.
POSTMASTER: Please send address corrections to The Journal of Steroid Biochemistry and Molecular Biology:, c/o Customer Services, Elsevier Science Inc., 655 Avenue of the Americas, New York, NY 10010, USA.

© 2001 Elsevier Science Ltd. All rights reserved

PII: S0960-0760(01)00163-7

LIST OF CONTENTS

JULY 2001

Vol. 78, No. 1

Seymour Lieberman and Yong Yeng Lin 1 Reflections on sterol sidechain cleavage process catalyzed by cytochrome $P450_{scc}$

Sanja Jurada, Janja Marc, Janez Preželj, Andreja Kocijančič and Radovan Komel 15 Codon 325 sequence polymorphism of the estrogen receptor α gene and bone mineral density in postmenopausal women

J.R. Pasqualini and G. Chetrite 21 Paradoxical effect of estradiol: it can block its own bioformation in human breast cancer cells

Kyungsil Yoon, Lea Pallaroni, Matthew Stoner, Kevin Gaido and Stephen Safe 25 Differential activation of wild-type and variant forms of estrogen receptor α by synthetic and natural estrogenic compounds using a promoter containing three estrogen-responsive elements

Shuji Hirata, Tomoko Shoda, Junzo Kato and Kazuhiko Hoshi 33 The multiple untranslated first exons system of the human estrogen receptor beta (ERβ) gene

Jennifer MacGregor Schafer, Hong Liu, Anait S. Levenson, Jun Horiguchi, Zehan Chen and V. Craig Jordan 41 Estrogen receptor α mediated induction of the transforming growth factor α gene by estradiol and 4-hydroxytamoxifen in MDA-MB-231 breast cancer cells

M. Hill, M. Bičíková, A. Pařízek, H. Havlíková, J. Klak, T. Fajt, M. Meloun, D. Cibula, A. Čegan, J. Šulcová, R. Hampl and L. Stárka 51 Neuroactive steroids, their precursors and polar conjugates during parturition and postpartum in maternal blood: 2. Time profiles of pregnanolone isomers

Heike Eggert, Martin Schulz, Frank O. Fackelmayer, Rainer Renkawitz and Martin Eggert 59 Effects of the heterogeneous nuclear ribonucleoprotein U (hnRNP U/SAF-A) on glucocorticoid-dependent transcription in vivo

E. Dornstauder, E. Jisa, I. Unterrieder, L. Krenn, W. Kubelka and A. Jungbauer 67 Estrogenic activity of two standardized red clover extracts (Menoflavon®) intended for large scale use in hormone replacement therapy

Daniela Rogoff, Celso E. Gomez-Sanchez, Mark F. Foecking, Jacobo Wortsman and Andrzej Slominski 77 Steroidogenesis in the human skin: 21-hydroxylation in cultured keratinocytes

Anneli Stavréus-Evers, Paolo Parini, Bo Freyschuss, Walter Elger, Gudrun Reddersen, Lena Sahlin and Håkan Eriksson 83 Estrogenic influence on the regulation of hepatic estrogen receptor-α and serum level of angiotensinogen in female rats

J.L. Carre, J.H. Abalain, L.L. Sarlieve and H.H. Floch 89 Ontogeny of steroid metabolizing enzymes in rat oligodendrocytes

Philippe Boudou, Joëlle Taieb, Bruno Mathian, Yves Badonnel, Isabelle Lacroix, Elisabeth Mathieu, Françoise Millot, Nicole Queyrel, Claude Somma-Delpero and Marie-Claude Patricot 97 Comparison of progesterone concentration determination by 12 non-isotopic immunoassays and gas chromatography/mass spectrometry in 99 human serum samples

AUGUST 2001

Vol. 78, No 2

F. Hoppe-Seyler, I. Crnkovic-Mertens, C. Denk, B.A. Fitscher, B. Klevenz, E. Tomai and K. Butz — 105 Peptide aptamers: new tools to study protein interactions

Takafumi Ochi and Taiko Oda — 113 Structure–effect relationship in the induction of mitotic phase-specific abnormality of centrosome integrity and multipolar spindles by steroidal estrogens and their derivatives in cultured mammalian cells

Feng Jiang, Luping Yang, Xiaoyan Cai, Jomol Cyriac, Ishaiahu Shechter and Zhou Wang — 123 Farnesyl diphosphate synthase is abundantly expressed and regulated by androgen in rat prostatic epithelial cells

T. Kalme, M. Loukovaara, H. Koistinen, R. Koistinen, M. Seppälä and P. Leinonen — 131 Factors regulating insulin-like growth factor binding protein-3 secretion from human hepatoma (HepG2) cells

Scott G. Lundeen, Zhiming Zhang, Yuan Zhu, Jeffrey M. Carver and Richard C. Winneker — 137 Rat uterine complement C3 expression as a model for progesterone receptor modulators: characterization of the new progestin trimegestone

Robert W. Brueggemeier, Abhijit S. Bhat, Carl J. Lovely, Holly D. Coughenour, Surachai Joomprabutra, Douglas H. Weitzel, Dale D. Vandre, Fouza Yusuf and William E. Burak Jr. — 145 2-Methoxymethylestradiol: a new 2-methoxy estrogen analog that exhibits antiproliferative activity and alters tubulin dynamics

Taisto Sarkola, Herman Adlercreutz, Satu Heinonen and C.J. Peter Eriksson — 157 Alcohol intake, androgen and glucocorticoid steroids in premenopausal women using oral contraceptives: an interventional study

D. Sunita Rao, D. Balkundi, Milan R. Uskokovic, Kou-Yi Tserng, Jeffrey W. Clark, Ronald L. Horst and G. Satyanarayana Reddy — 167 Double bond in the side chain of 1α,25-dihydroxy-22-ene-vitamin D_3 is reduced during its metabolism: studies in chronic myeloid leukemia (RWLeu-4) cells and rat kidney

Satoshi Maruyama, Nariaki Fujimoto, Kohsuke Asano and Akihiro Ito — 177 Suppression by estrogen receptor β of AP-1 mediated transactivation through estrogen receptor α

A.C. McDonnel and W.J. Murdoch — 185 High-dose progesterone inhibition of urokinase secretion and invasive activity by SKOV-3 ovarian carcinoma cells: evidence for a receptor-independent nongenomic effect on the plasma membrane

Ya-Hua Zhuang, Dana Sarca, Alessandro Weisz, Lucia Altucci, Luigi Cicatiello, Eva Rollerova, Pentti Tuohimaa and Timo Ylikomi — 193 Cell type-specific induction of cyclin D and cyclin-dependent kinase inhibitor $p27^{kip1}$ expression by estrogen in rat endometrium

SEPTEMBER 2001

Vol. 78, No. 3

General reviews

C. Orlando and S. Gelmini — 201 Telomerase in endocrine and endocrine-dependent tumors

Michael Stowasser and Richard D. Gordon — 215 Familial hyperaldosteronism

Niina Saarinen, Suresh C. Joshi, Markku Ahotupa, Xiangdong Li, Jenni Ämmälä, Sari Mäkelä and Risto Santti — 231 No evidence for the in vivo activity of aromatase-inhibiting flavonoids

I.P. Nnane, V.C.O. Njar and Angela A. Brodie 241 Pharmacokinetic profile of 3β-hydroxy-17-(1*H*-1,2,3-triazol-1-yl)androsta-5,16-diene (VN/87-1), a potent androgen synthesis inhibitor, in mice

Alessandro D. Genazzani, C. Bersi, S. Luisi, F. Fruzzetti, B. Malavasi, M. Luisi, F. Petraglia and A.R. Genazzani 247 Increased adrenal steroid secretion in response to CRF in women with hypothalamic amenorrhea

Teruo Sugawara, Eiji Nomura, Noriaki Sakuragi and Seiichiro Fujimoto 253 The effect of the arylhydrocarbon receptor on the human steroidogenic acute regulatory gene promoter activity

V.L. Sylvia, F. Del Toro Jr., R.R. Hardin, D.D. Dean, B.D. Boyan and Z. Schwartz 261 Characterization of PGE_2 receptors (EP) and their role as mediators of $1\alpha,25\text{-}(OH)_2D_3$ effects on growth zone chondrocytes

Wolfgang Reichert, Armin Michel, Rolf W. Hartmann and Joachim Jose 275 Stable expression of human 5α-reductase type II in COS1 cells due to chromosomal gene integration: a novel tool for inhibitor identification

Frederick Koerner, Tetsunari Oyama, Masafumi Kurosumi and Horacio Maluf 285 Ovarian hormone receptors in human mammary stromal cells

Snait Tamir, Mark Eizenberg, Dalia Somjen, Sarit Izrael and Jacob Vaya 291 Estrogen-like activity of glabrene and other constituents isolated from licorice root

OCTOBER 2001

Vol. 78, No. 4

Review

Seymour Lieberman and Patricia A. Warne 299 17-Hydroxylase: an evaluation of the present view of its catalytic role in steroidogenesis

Peter H. Jellinck, Susan J. Lee and Bruce S. McEwen 313 Metabolism of dehydroepiandrosterone by rat hippocampal cells in culture: possible role of aromatization and 7-hydroxylation in neuroprotection

Hilde Vanaken, Robert D. Gerard, Guy Verrijdt, Annemie Haelens, Wilfried Rombauts and Frank Claessens 319 Tissue-specific androgen responses in primary cultures of lacrimal epithelial cells studied by adenoviral gene transfer

K. Sakhila Banu, P. Govindarajulu and M. Michael Aruldhas 329 Testosterone and estradiol modulate TSH-binding in the thyrocytes of Wistar rats: influence of age and sex

Laurent Bermont, Frédérique Lamielle-Musard, Evelyne Chezy, Alessandro Weisz and Gérard L. Adessi 343 17β-Estradiol inhibits forskolin-induced vascular endothelial growth factor promoter in MCF-7 breast adenocarcinoma cells

Peter Van Eenoo, Frans T. Delbeke, Frank H. de Jong and Patrick De Backer 351 Endogenous origin of norandrosterone in female urine: indirect evidence for the production of 19-norsteroids as by-products in the conversion from androgen to estrogen

O. Le Curieux-Belfond, S. Moslemi, M. Mathieu and G.E. Séralini 359 Androgen metabolism in oyster *Crassostrea gigas*: evidence for 17β-HSD activities and characterization of an aromatase-like activity inhibited by pharmacological compounds and a marine pollutant

Richard Hampl, Martin Hill and Luboslav Stárka 367 7-Hydroxydehydroepiandrosterone epimers in the life span

Yorishige Imamura, Hidenori Takada, Rika Kamizono and Masaki Otagiri 373 Hormonal regulation of male-specific 20β-hydroxysteroid dehydrogenase with carbonyl reductase-like activity present in kidney microsomes of rats

NOVEMBER 2001

Vol. 78, No. 5

Review

Andrew C.B. Cato and Sigrun Mink 379 BAG-1 family of cochaperones in the modulation of nuclear receptor action

Eeva M. Valve, Johanna K. Ruohola, Merja J. Tasanen, James F. Glover, Philippa D. Darbre and Pirkko L. Härkönen 389 Expression of the androgen-dependent MMTV-specific orf gene in Shionogi 115 mouse mammary tumor cells

S. Bousios, D. Karandrea, Ch. Kittas and E. Kitraki 401 Effects of gender and stress on the regulation of steroid receptor coactivator-1 expression in the rat brain and pituitary

Matthew E. Burow, Christopher B. Weldon, Yan Tang, John A. McLachlan and Barbara S. Beckman 409 Oestrogen-mediated suppression of tumour necrosis factor alpha-induced apoptosis in MCF-7 cells: subversion of Bcl-2 by anti-oestrogens

Nameer Kirma, Usha Mandava, Kristin Wuichet and Rajeshwar Rao Tekmal 419 The effects of aromatase overexpression on mammary growth and gene expression in the aromatase x transforming growth factor alpha double transgenic mice

Anna Tchoudakova, Mitsuyo Kishida, Elizabeth Wood and Gloria V. Callard 427 Promoter characteristics of two *cyp*19 genes differentially expressed in the brain and ovary of teleost fish

Francisco G. Hernandez-Guzman, Tadayoshi Higashiyama, Yoshio Osawa and Debashis Ghosh 441 Purification, characterization and crystallization of human placental estrone/dehydroepiandrosterone sulfatase, a membrane-bound enzyme of the endoplasmic reticulum

Zi-Jiang Chen, Danian Che, Michael Vetter, Shiguo Liu and Chung-Ho Chang 451 17β-Estradiol inhibits soluble guanylate cyclase activity through a protein tyrosine phosphatase in PC12 cells

Indra Poola and Valerie Speirs 459 Expression of alternatively spliced estrogen receptor alpha mRNAs is increased in breast cancer tissues

C.H.J. Verhoeven, R.H.M. Gloudemans, P.A.M. Peeters, J.J. van Lier, F.T.M. Verheggen, G.M.M. Groothuis, I.M.C.M. Rietjens and R.M.E. Vos 471 Excretion and metabolism of desogestrel in healthy postmenopausal women

H.I. Osipova-Goldberg, V.A. Rogozkin and B.I. Feldkoren 481 Properties of free and occupied androgen receptor in rat skeletal muscle cytosol: effect of testosterone

Sameera Al-Awadi, M. Afzal and S. Oommen 493 Studies on *Bacillus stearothermophilus*. Part 1. Transformation of progesterone to a new metabolite 9,10-seco-4-pregnene-3,9,20-trione

III Contents index for Volume 78 (2001)

VII Subject index for Volume 78 (2001)

XII Author index for Volume 78 (2001)